

Process for making an alkali stable, abrasion resistant coating and a lacquer which may be used in this process.

Patent Number: ☐ EP0471301, A3
Publication date: 1992-02-19
Inventor(s): GREIWE KLAUS DR (DE); GLAUBITT WALTHER (DE); ARPAC ERTUGRUL DR (TR)
Applicant(s): FRAUNHOFER GES FORSCHUNG (DE)
Requested Patent: ☐ DE4025215
Application: EP19910113365 19910808
Priority Number(s): DE19904025215 19900809
IPC Classification: C03C17/30; C04B41/00; C09D163/00; C09D183/04
EC Classification: C03C17/30, C09D163/00, C09D183/08, C09D183/14, C04B41/49B4N,
Equivalents:
Cited Documents: EP0072173; US4233428; DE2713857; JP56125465; JP1229030; JP59096279

Abstract

There is described a process for making a coating composition based on hydrolysable silanes, which is characterised in that one or more hydrolysable compounds of the general formula (I) >SiR₄ (1) where the radicals R have been selected from hydrolysable groups, hydroxyl groups and non-hydrolysable groups, at least some of the non-hydrolysable groups present having at least one amino group and the molar ratio of hydrolysable groups present to amino-containing radicals present being within the range from 5:1 to 1:1, are reacted with water, selecting a molar ratio of water to hydrolysable groups present in the range from 1:1 to 0.4:1 and in that, before, during or after the addition of water, at least one compound having at least two epoxy groups present in the molecule is added in such an amount that the molar ratio of epoxy groups to amino groups in the non-hydrolysable radicals of the compounds of the general formula (I) is within the range from 4:1 to 1:4. A coating composition obtainable by this process has in particular, excellent alkali stability and abrasion resistance and therefore is particularly suitable for coating ceramic materials, glass and metals.

Data supplied from the esp@cenet database - 12